Remarks

As stated above, Applicants appreciate the Examiner's thorough examination of the subject application and request reexamination and reconsideration of the subject application in view of the following remarks.

In the subject application, claims 1-17, 20, and 23-30 are pending, of which claims 1, 11, and 20 are independent claims, and claims 2-10, 12-17, and 23-30 are dependent. Claims 18, 19, 21, and 22 were cancelled in response to the non-final office action dated February 20, 2008 (the "first action"). Applicants have amended claims 1, 5-17, and 20. Applicants respectfully submit that no new matter is believed to have been added as a result of these amendments.

Claim Rejections – 35 U.S.C. § 101

Claims 1-17 stand rejected under 35 U.S.C. § 101 as being directed towards non-statutory subject matter for failing to meet the legal requirements of a process. More specifically, the Examiner has rejected claims 1-17 because the Examiner believes that the methods of claims 1-17: (1) are not tied to another statutory class, such as a machine or apparatus, and (2) do not transform the underlying subject matter (such as an article or materials) to a different state or thing. Applicants respectfully traverse this rejection.

Applicants have amended independent claim 1 such that the method of claim 1: (1) is tied to another statutory class, such as a machine or apparatus, and (2) transforms the underlying subject matter (such as an article or materials) to a different state or thing. Applicants' amended independent claim 1 is provided below for the Examiner's convenience:

> 1. (Currently Amended) A computer-implemented method for defining one or more roles for a project, the method comprising:

extracting, via a search engine, key words from unstructured text wherein the unstructured text is stored on a storage medium accessible across a network;

comparing the key words against a skills taxonomy;

generating a skills list based on the comparison between the skills taxonomy and the key words;

comparing the skills list to a predefined role template wherein:

the predefined role template includes skills required to perform a predefined role; and

the predefined role template is stored on the storage medium;

generating, via a role generator stored on a programmable machine, a new role template based on the comparison of the skills list and the predefined role template;

displaying the new role template in a graphical user interface on a computing device; and

adding the new role template to a role database.

Applicants respectfully submit that the method of amended independent claim 1 is tied to a particular machine or apparatus because claim 1 includes the limitations of a search engine, a storage medium accessible across a network, a role generator stored on a programmable machine, a graphical user interface on a computing device, and a role database. Further, Applicants respectfully submit that the method of amended claim 1 transforms the underlying subject matter, i.e. data, by transforming unstructured text, i.e. data, into a role template and displaying the role template in a graphical user interface. Support for the proposed amendments to claim 1 may be found, for example, in paragraphs [0009], [0011], [0023], [0036], [0037], [0045], and [0046] of the specification, as published. Paragraphs [0009], [0011], [0023], [0036], [0037], [0045], and [0046] are provided below:

[0009] A project role generator system may include a skills taxonomy, an archive of at least one predefined project role, and a search engine. **The search engine retrieves unstructured text from one or more sets of unstructured data, and extracts key**

words from the unstructured text associated with a project. The system also includes a role generator module that is configured to generate one or more role templates for the project based on the key words, predefined roles, and the skills taxonomy. (*See* the subject application, as published, paragraph [0009]; emphasis added.)

[00011] The one or more role templates, i.e. role definitions, can be provided to a user interface for adjustment or modification. **The role templates, modified or not, can also be accumulated along with the predefined roles to build a role database and role-generation knowledge base.** Role definitions can be used to create job descriptions for finding candidates for full-time or temporary jobs. Role definitions also can be used in various planning scenarios, including but not limited to capacity planning, recruitment planning, and contractor planning, or for contractor budgeting and recruiting, for example. Role definitions can be searched for reuse in other projects, or searched by employees, contractors, or prospective employees seeking a job. The sources of information used to generate role definitions may be continuously scanned for adding new roles. Accordingly, roles for a project may be generated dynamically and defined in a manner that tends to minimize time and expense. (*See* the subject application, as published, paragraph [0011]; emphasis added.)

[0023] **The portal 120, enterprise management system 130 and enterprise base systems 140 can reside in one or more programmable machines, which can communicate over a network or one or more communication busses.** For example, the base systems 140 can reside in multiple servers connected to an enterprise network, and the portal 120 and the enterprise management system 130 can reside in a server connected to a public network. Thus, the system can include customized, web-based, cross-functional applications, and a user of the system can access and manage enterprise programs and resources using these customized web-based, cross-functional applications from anywhere that access to a public network is available. (*See* the subject application, as published, paragraph [0023]; emphasis added.)

[0036] FIG. 3 is a block diagram of a system 300 that may be used to dynamically generate one or more roles for a project. **In the pictured example, an enterprise management system 301 includes a role generator 302, which may be implemented as a module, an application, or other software-based component.** The enterprise management system 301 may be a composite application environment, i.e. two or more content-driven, cross-functional integrated business applications. The role generator 302 generates one or more role templates 314 that can be used for creating roles for the project. The role templates 314 may be made available for presentation to a portal 316, or other interface, for additional configuration. Each role template 314 defines a number of skills that are desired and/or required to fulfill a role by an individual associated with the project. (*See* the subject application, as published, paragraph [0036]; emphasis added.)

[0037] **The role generator 302 interacts with a search engine 304.** The search engine 304 performs intelligent text mining on unstructured text 306 that is associated with the project. The unstructured text 306 is part of one or more sets of unstructured data 308. **The unstructured data 308 can be stored in any medium accessible from enterprise base systems, and may be accessible across a network such as network 110 in FIG. 1.** Examples of unstructured data include, but are not limited to, project plans, resource and project management databases, project graphs and charts, and the like. (*See* the subject application, as published, paragraph [0037]; emphasis added.)

> [0045] At block 408, a decision may be made whether to filter the skills list to refine the types or levels of skills included in the skills list. If filtering is selected, at block 410 a rank is assigned to each skill in the skills list. The rank may be assigned according to a degree to which the skill is relevant to the project, or other type of ranking. At block 412, skills in the skills list that fall below a predetermined threshold rank are deleted from the skills list or otherwise disregarded. The resultant filtered skills list from block 412, or the originally generated, unfiltered skills list from block 408, is compared against one or more predefined roles. **The predefined roles are archived and accessed from a storage medium.** In an implementation, previously-formed role templates from prior projects are accumulated to serve, in whole or part, as predefined roles for future project role generation. **The predefined roles provide a model or template for generating new role templates, at 416. Accordingly, at block 416 a skills list is organized into a role according to any suitable format or data structure.** (*See* the subject application, as published, paragraph [0045]; emphasis added.)
>
> [0046] At block 418, the new role templates can be adjusted or configured as necessary or desired. **In one example, a role template is provided as a form document in a graphical user interface such as a portal.** A user can access and modify the role template using any available data input tools or methods. Thereafter, the roles can be assigned to individuals associated with the project. **The original new role templates or modified role templates can be saved with the predefined roles at block 420, adding to the role generation history and further refining the capability to dynamically generate accurate and effective roles.** At block 422 a specific individual may be matched with a role template. Thereafter, the role generator or other logic module can assign the individual to a role corresponding to the role template. (*See* the subject application, as published, paragraph [0046]; emphasis added.)

First, Applicants respectfully submit that since amended claim 1 recites a computer implemented method, it is implied that the method is tied to a computer, i.e, a machine or apparatus. Further, Applicants respectfully submit that the role generator is stored on a programmable machine, i.e., a machine or apparatus. Moreover, Applicants respectfully submit that a new role template is displayed in a graphical user interface on a computing device, i.e., a machine or apparatus.

Additionally, Applicants respectfully submit that amended claim 1 is tied to a machine because the role generator is included within an enterprise management system, and the enterprise management system resides in a programmable machine. *See* the subject application, paragraphs [0023] and [0036] (provided above). Since the role generator may be implemented

as a module, application, or other software based component, Applicants respectfully submit that one of ordinary skill in the art would appreciate that the instruction sets and subroutines of the role generator are executed by the programmable machine, i.e. a particular machine or apparatus. *See* the subject application, paragraph [0036] (provided above).

Second, Applicants respectfully submit that, since the underlying subject matter, i.e. data, is transformed from unstructured text to a skills list, from a skills list to a new role template, and from a new role template to be displayed on graphical user interface, the method of amended claim 1 transforms the underlying subject matter, i.e. data, to a different state or thing. Therefore, Applicants respectfully submit that the method of amended independent claim 1 is directed towards statutory subject matter because (1) it is tied to a machine or apparatus, and (2) it transforms the underlying subject matter, i.e. data, into a different state or thing. Further, since claims 2-10 depend, either directly or indirectly, from claim 1, Applicants respectfully submit that those claims are direct toward statutory subject matter as well.

Additionally, Applicants have amended independent claim 11 into a *Beauregard* claim reciting similar subject matter to that of claim 1. Therefore Applicants respectfully submit that claim 11 is also directed toward statutory subject matter. Further, since claims 12-17 depend, either directly or indirectly from claim 11, Applicants respectfully submit that those claims are directed toward statutory subject matter as well. Accordingly, withdrawal of the rejections under 35 U.S.C. § 101 is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 1-17, 20, and 23-30 stand rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Application Publication No. 2002/0194379 ("Bennett") in view of U.S. Patent No. 6,275,812 ("Haq"). Applicants respectfully traverse this rejection.

First, Applicants respectfully submit that Bennett and Haq, whether viewed separately or in combination, do not disclose each and every limitation of amended independent claim 1. Bennett appears to disclose an invention where event information is extracted from an email and used to populate a template. Haq appears to disclose an invention where a skills template, i.e. skills list, is used to weigh particular skills, skill levels are assessed numerically, and metrics are used to find a person of matching skill. However, Applicants respectfully submit that neither Bennett nor Haq appear to disclose generating a skills list based on key words extracted from unstructured text.

While Bennett appears to disclose extracting data, i.e. event information, from documents, i.e. email, Bennett does not appear to disclose extracting key words from unstructured text and comparing them against a skills taxonomy to generate a skills list, as in claim 1. Further, while Haq appears to disclose using skills templates and metrics to match people with a required skill level, Haq does not appear to disclose how the skills in the skills templates are found or how the skills templates are created, as in amended claim 1.

The Examiner appears to rely on paragraph [0074] of Bennett, and column 3, line 62 through column 4, line 25 of Haq as disclosing the limitations of "comparing the key words against a skills taxonomy" and "generating a skills list based on the comparison between the skills taxonomy and the key words[,]" in claim 1 of the subject application. Paragraph [0074] of Bennett and column 3, line 62 through column 4, line 25 of Haq are provided below:

> [0074] After tokenization is complete, **the process applies a series of extraction pattern sets to recognize proper names and pre-specified events (step 720)**. The name pattern set would tag dynamically, for example, the names of people, places, organizations, email/surface addresses, URL's, telephone/fax numbers, monetary expressions, dates, time, etc. The event pattern set would tag, for example, scheduling events, tasking events, merger & acquisition events, and so on. The items to be extracted are extendable. (*See* Bennett, as published, paragraph [0074]; emphasis added.)
>
> (20) Skill Set: **This includes a complete listing of all the skills required for a specialty.** (21)(22)(23) Technology/Product Line: Each skill in a specialty can have specific application depending on technology or product line. ISDRM allows each skill to be categorized as per technology, application, or product line. Under each of these classifications for a skill there are three columns labeled W(Weight)(24), I(Index)(25), and P(Points)(26). (24) Weight (W): The skills assessment form not only lists all the skills required for a specialty but also assigns weights to each skill in a specialty. The weights indicate the relevant importance of each skill in performing all the job functions associated with a specialty in that technology. Any finite weight including 0 can be assigned to a skill, "0" meaning the skill is not required for a particular job function while a non-zero number associates a relative importance level to the skill. The weights are decided based upon the roles and responsibilities. Skills can be sub-classified based on application/technology. For example, RF Design Skill 1 (Skill 1 in FIGS. 3-4) is a skill. However, these techniques may be of more use in one technology (say, CDMA (23)) than another (perhaps TDMA (21)), even though both technologies might have use of an RF Design Engineer. Thus, the weight assigned such a skill would be higher for column (23) than column (21). The weight columns may be shaded in the form indicating that these columns are part of the system design and cannot be altered by individual employees. The weights are totaled for each column (30)(31)(32). (*See* Haq, col. 3, line 62 – col. 4, line 25; emphasis added.)

As shown in the passages above, neither Bennett nor Haq appear to disclose how the skills list is generated. Applicants respectfully submit that since neither Bennett nor Haq appear to disclose how a skills list is generated, neither Bennett nor Haq appear to disclose "generating, via a role generator stored on a programmable machine, a new role template *based on the comparison of the skills list* and the predefined role template[,]" as in amended claim 1 of the subject application. (Emphasis added.) Further, while Bennett discloses "the process applies a series of extraction pattern sets to recognize proper names and pre-specified events[,]" Bennett does not appear to disclose how to recognize skills from extracted data or text, i.e. key words, as in claim 1 of the subject application. In contrast to the "extraction pattern sets" of Bennett and

the "complete listing of all the skills required for a specialty" of Haq, paragraph [0035] of the subject application shows that "[t]he key words then are compared against a skills taxonomy. The skills taxonomy can include a qualifications catalog or an archived skills list. A match between the key words and the skills taxonomy yields a list of skills required for the project." Paragraph [0035] of the subject application, as published, is provided below:

> [0035] In one implementation, a computer-implemented method for dynamic role generation may include generating a list of skills relating to a project based on a comparison between a stored skills taxonomy and key words extracted from unstructured text associated with the project. The method also may include generating one or more role templates for the project based on a comparison of the generated list of skills and one or more predetermined project roles. Intelligent text mining on multiple sets of unstructured data related to a project may be used to extract key words from the data. **The key words then are compared against a skills taxonomy. The skills taxonomy can include a qualifications catalog or an archived skills list. A match between the key words and the skills taxonomy yields a list of skills required for the project. The list of skills then is compared against other skills lists for past projects to define one or more role templates.** An advantage of this technique is to reduce the tedious work of grouping skills together to define individual roles. Another potential advantage is that this technique may be used to provide a detailed proposal for roles to staff a project. (*See* the subject application, as published, paragraph [0035]; emphasis added.)

As such, Applicants respectfully submit that Bennett and Haq do not appear to disclose each and every limitation of claim 1 because neither Bennett nor Haq appear to disclose the limitations of "comparing the key words against a skills taxonomy" and "generating a skills list based on the comparison between the skills taxonomy and the key words[,]" as in amended claim 1 of the subject application. Also, Applicants respectfully submit that neither Bennett nor Haq appear to disclose "generating, via a role generator stored on a programmable machine, a new role template based on the comparison of the skills list and the predefined role template[,]" as in amended claim 1 of the subject application.

Further, since amended claims 11 and 20 include claim similar subject matter to that of amended claim 1, Applicants respectfully submit that Bennett and Haq do not appear to disclose

each and every limitation of amended claims 11 and 20 either. Additionally, since claims 2-10, 12-17, and 23-30 depend, either directly or indirectly, from amended claims 1, 11, and 20, respectively, Applicants respectfully submit that Bennett and Haq do not appear to disclose each and every limitation of those claims either.

Second, Applicants respectfully submit that combining the cited references, i.e. Bennett and Haq, as suggested by the Examiner, does not appear to yield the results of amended claims 1, 11, and 20. If Bennett and Haq are combined as suggested by the Examiner, it appears that only existing skills lists as those contemplated by Haq could be used. As discussed above, the combination of the references does not appear to teach generating a skills list based on key words extracted from unstructured text. Therefore, Applicants respectfully submit that the combination Bennett and Haq appears to yield only the matching of people with required skill sets of Haq, and not the generation of a skills list and new role template as in amended claims 1, 11, and 20 of the subject application. Further, since claims 2-10, 12-17, and 23-30 depend, either directly or indirectly, from claims 1, 11, and 20, respectively, Applicants respectfully submit that the combination Bennett and Haq does not appear to yield the results of those claims either.

Third, even though Bennett and Haq do not appear to disclose each and every limitation of amneded claims 1, 11, and 20, in the interest of advancing prosecution of the subject application Applicants have amended claims 1, 11, and 20 to include further limitations disclosed in the specification that do not appear to be disclosed in either Bennett or Haq. Applicants have added the following limitations to claim 1: "displaying the new role template in a graphical user interface on a computing device" and "adding the new role template to a role database." These limitations are disclosed in paragraphs [0011] and [0046] as shown above in the § 101 analysis. Applicants have added similar limitations to claims 11 and 20. Applicants

respectfully submit that since Bennett and Haq do not appear to disclose these limitations, Bennet and Haq, whether viewed separately or in combination, do not appear to disclose each and every limitation of Applicants' amended calims 1, 11, and 20. Further, since the remaining claims ultimately depend from either claim 1, 11, or 20, Applicants respectfully submit that Bennet and Haq, whether viewed separately or in combination, do not appear to disclose each and every limitation of those claims either.

As such, Applicants respectfully submit that since: (1) the cited references in combination do not disclose each and every limitation in claims 1-17, 20, and 23-30, (2) combining the cited references as suggested by the Examiner does not produce the same result as claims 1-17, 20, and 23-30, and (3) the cited references in combination do not disclose the further limitations added to claims 1-17, 20, and 23-30 by the Applicants in the interest of advancing prosecution, all pending claims in the subject application are in condition for allowance. Accordingly, withdrawal of the rejections to claims 1-17, 20, and 23-30 under 35 U.S.C. § 103 is respectfully requested.

Having overcome all of the outstanding rejections, Applicants respectfully submit that the subject application is now in condition for allowance. Applicants believe that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper.

In light of the above remarks, Applicants respectfully assert that the subject application is in condition for allowance. While Applicants respectfully assert that the subject application is now in condition for allowance, the Examiner is invited to telephone Applicants' attorney (617-305-2143) to facilitate prosecution of this application. Please apply any charges or credits to deposit account 50-2324.

Respectfully submitted,

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